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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,972	01/16/2004	James Stoffer	423.027US1	6512

7590 10/19/2006

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EXAMINER	
RONESI, VICKEY M	
ART UNIT	**PAPER NUMBER**
1714	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/758,972	STOFFER ET AL.	
	Examiner	Art Unit	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31,35-62,67-70,121,122,127-133,137-139,141-168 and 184-195* is/are pending in the application.

4a) Of the above claim(s) *23-29,154-159,162 and 163* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *See Continuation Sheet* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims rejected are 1-22,30,31,35-62,67-70, 121,122,127-133,137-139,141-153,160,161,164-168,184-195

DETAILED ACTION

1. The examiner has reconsidered the election of species requirement and has allowed the anion of the rare earth compound to include not only mixed oxides but also oxides, solid solution oxides, and hydrated oxides. Claims 8, 9, 12, 46, and 49 are now subject to examination in the following Office action.

2. All outstanding objections and rejections, except for those given below, are withdrawn in light of applicant's amendment filed 6/27/2006.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

4. In light of applicant's arguments filed 6/27/2006, new grounds of rejection are set forth below. Thus, *a 2nd non-final Office action is set forth as follows.*

Claim Objections

5. Claims 36, 40, 42, and 147 are objected to because of the following reasons:

With respect to claim 36, the term "extenders" has antecedent basis and should read as "the extenders."

With respect to claim 40, the scope of claim is outside independent claim 35 which requires the extenders to be mandatorily present. The open-ended range of up to 99 wt % wherein extenders can be optional is objected to.

With respect to claim 42, 147, to have full antecedent basis, the phrase "at least one of" should be inserted before "the rare earth compound[s]" at the end of line 1 of the claim.

Appropriate correction is required.

6. Applicant is advised that should claim 10 be found allowable, claim 11 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 1-7, 10, 11, 13-22, 30, 31, 40, 67-69, 127-131, 141-146, 164-168, 184-188, 192, 194, and 195 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claims 1, 13, 14, 67, 144-146, and 164, the ranges "at least about 1 wt %," "at least 3 wt %," "at least about 28 wt %," and "at least 40 wt %" fail to satisfy the written description requirement of 35 USC 112, first paragraph since there does not appear to be a

written description requirement of open-ended ranges in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

With respect to claim 40, the range of "up to about 99 wt % metal sulfate" fails to satisfy the written description requirement of 35 USC 112, first paragraph since there does not appear to be a written description requirement of an open range including 0 wt % in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. Applicant has not pointed to any portion of the specification, and examiner has not found any support for this phraseology in the specification as originally filed. In paragraph 0039 of the specification, support is had only for a closed range of 1-99 wt %.

With respect to claims 2-7, 10-12, 15-22, 30, 31, 68, 69, 127-131, 141-143, 165-168, 184-188, 192, 194, and 195, they are rejected for being dependent on a rejected claim.

8. Claims 8, 9, 12, 132, 141, 142, and 191 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 8, 9, 12, 132, the term "the praseodymium compound" lacks antecedent basis.

With respect to claims 141, 142, and 191, the term "the praseodymium compound" lacks antecedent basis.

Claim Rejections - 35 USC § 102

9. Claims 1, 7, 10, 11, 13, 14, 17, 19, 56-58, 60, 141-146, 164-166, 189, 190, 194, and 195 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi et al (JP 05-117589).

Pending a full English-language translation of JP 05-117589, in setting forth this rejection, a machine translation has been relied upon.

Takeuchi et al discloses a solvent-based (paragraph 0010) coating material comprising 100 parts by weight (pbw) polymeric resin (abstract, paragraph 0008) and 10-300 pbw an inorganic bulking agent such as Pr_6O_{11} (mixed oxide, praseodymium (III/IV) oxide) and mixtures with other oxides such as La_2O_3 (paragraph 0009). 0.1-75 wt % Pr_6O_{11} is taught.

In light of the above, it is clear that Takeuchi et al anticipates the presently cited claims.

Claim Rejections - 35 USC § 103

10. Claims 2, 3, 67, 68, and 150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al (JP 05-117589).

The discussion with respect to Takeuchi et al in paragraph 9 above is incorporated here by reference.

Takeuchi et al does not explicitly disclose mixture of two rare earth compounds or a dispersant.

With respect to the mixture (claims 2, 3, 67, 68, and 150), given that Takeuchi et al discloses mixtures of inorganic bulking agents which include Pr_6O_{11} and La_2O_3 (paragraph 0009), it would have been obvious to one of ordinary skill in the art to utilize a mixture including two rare earth oxides such as Pr_6O_{11} and La_2O_3.

With respect to the dispersant (claim 168), while Takeuchi et la fails to disclose a dispersant, it considered that it would have been well within the capabilities of one of ordinary skill in the art to utilize a dispersant to help the dispersion of the inorganic bulking agent in the coating material.

11. Claims 1-20, 30, 31, 35-38, 40-52, 54-59, 61, 62, 67-70, 121, 122, 127-129, 131-133, 137-139, 141-152, 160, 161, 164-168, 184, 188, 192, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoji et al (US 6,190,780, cited on IDS dated 8/23/2004).

Shoji et al discloses a corrosion-resistant coating composition (col. 12, line 21 to col. 13, line 37) comprising rare earth oxyacids and/or hydroxyacids (col. 7, lines 35-46); optionally rare earth (i.e., praseodymium) oxides, hydroxides, or sulfates in suitable amounts (col. 9, lines 49-63); compounds that reinforce the corrosion-resistance such as sodium sulfates (i.e., extenders) (col. 11, lines 4-19); a resin such as epoxy resins (col. 13, lines 23-32); titanium dioxide (col. 15, line 13); and a dispersant (col. 13, line 35).

While Shoji et al does not exemplify a coating composition containing the presently claimed combinations of ingredients in specific amounts, given that Shoji et al teaches a corrosion-resistant coating composition which does or can contain the presently claimed ingredients either as a binder or as an additive to aid in corrosion resistance with guidance to determine suitable amounts and solubility parameters (col. 9, lines 55-63; col. 12, lines 52-67; col. 14, lines 53-62), it would have been obvious to one of ordinary skill in the art to utilize a corrosion-resistance composition containing an appropriate binder and various anticorrosion additives in suitable amounts, including those presently claimed, absent any showing of

unexpected or surprising results regarding the presently claimed combination of ingredients. Case law holds that all disclosures "including unpreferred embodiments" must be considered. *In re Lamberti* 192 USPQ 278, 280 (CCPA 1976) citing *In re Mills* 176 USPQ 196 (CCPA 1972).

With respect to claims 8-11, 45-49, 56, 61, 62, 68, 132, 143-147, 150, and 161 given that the rare earth metal praseodymium has a limited number of oxidation states, it would have been obvious to one of ordinary skill in the art to utilize any one of the oxidation states of praseodymium in order to impart corrosion resistant properties.

12. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoji et al (US 6,190,780, cited on IDS dated 8/23/2004) in view of Oakes (US 4,370,256).

The discussion with respect to Shoji et al in paragraph 11 above is incorporated here by reference.

Shoji et al does not disclose the use of calcium sulfate but teaches the use of additional compounds that reinforce the corrosion-resistance (col. 11, lines 4-19).

Oakes discloses corrosion-inhibiting agents and teaches that dextrin has been used effectively as a corrosion inhibitor (col. 2, line 11; col. 3, lines 2-5 and 47-50).

Given that Shoji et al is open to the use of other anticorrosive additives and further given the teaching by Shoji et al that dextrins are known corrosion inhibitors, it would have been obvious to one of ordinary skill in the art to utilize a dextrin corrosion inhibitor in the composition of Shoji et al.

13. Claims 39, 130, 153, 186, and 187 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoji et al (US 6,190,780, cited on IDS dated 8/23/2004) in view of Reuter et al (US 2003/0082368).

The discussion with respect to Shoji et al in paragraph 11 above is incorporated here by reference.

Shoji et al does not disclose the use of calcium sulfate but teaches the use of additional compounds that reinforce the corrosion-resistance (col. 11, lines 4-19).

Reuter et al discloses an aqueous coating material and teaches that typical anticorrosion pigments include calcium sulfate, barium sulfate, etc (paragraph 0069). Although both Shoji et al and Reueter et al are silent with respect to appropriate amounts of anticorrosion pigments, it is considered that it would have obvious to one of ordinary skill in the art to utilize appropriate amounts of anticorrosion pigments, including those within the scope of the instant claims.

Given that Shoji et al is open to the use of other anticorrosive or rustproof pigments and given the teaching by Reuter et al regarding that calcium and barium sulfates are typical and well known anticorrosion pigments, it would have been obvious to one of ordinary skill in the art to utilize a calcium or barium sulfate as the anticorrosive pigment.

14. Claims 53, 60, 189, 190, 194, and 195 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoji et al (US 6,190,780, cited on IDS dated 8/23/2004) in view of Tucker (US 3,837,894).

The discussion with respect to Shoji et al in paragraph 11 above is incorporated here by reference.

Shoji et al does not disclose the use of an inorganic binder such as that based on a silicone resin but appears to be open to other suitable resins (col. 13, lines 23-32).

Tucker discloses a corrosion resistant coating and teaches that epoxy resins (which are taught by Shoji et al) and silicone resins are advantageously used because they are highly resistant to many aqueous corrosive environments (col. 1, lines 31-34).

Given that Shoji et al is open to the use of other resins not disclosed and further given that silicone resins are advantageously used like epoxy resins, it would have been obvious to one of ordinary skill in the art to utilize a silicone resin in the composition of Shoji et al.

15. Claims 191 and 193 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoji et al (US 6,190,780, cited on IDS dated 8/23/2004) in view of Koefod (US 5,531,931).

The discussion with respect to Shoji et al in paragraph 11 above is incorporated here by reference.

Shoji et al does not disclose the use of calcium sulfate but teaches the use of additional compounds that reinforce the corrosion-resistance (col. 11, lines 4-19).

Koefod teaches that rare earths salts such as praseodymium sulfate are used as corrosion inhibitors (col. 4, lines 8-28).

Given that Shoji et al is open to the use of other anticorrosive or rustproof pigments and given the teaching by Koefod regarding praseodymium sulfate that it is a typical and well known anticorrosion additive, it would have been obvious to one of ordinary skill in the art to utilize a praseodymium sulfate as the anticorrosive pigment.

Double Patenting

16. Claims 1-7, 15, 17, 35,42-45, 70, and 151 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 39-41 of copending Application No. 10/758,973 (published as US 2004/0186201, cited on IDS filed 3/16/2005).

US appl. '973 claims a coating composition comprising one or more rare earth oxide compounds, a binder, and one or more neutral to slightly acidic generating extenders. While US appl. '973 claims, in addition to the presently claimed ingredients, a corrosion-inhibiting carbon pigment, the scope of the instant claims clearly encompass the cited claims of US appl. '973 and thus is rendered obvious over US appl. '973.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

17. Applicant's statement on page 30 of the amendment filed 6/27/2006 regarding the provisional obviousness-type double patenting rejections is acknowledged. If the following double-patenting rejection is the only rejection remaining in this application and if there is a provisional obviousness-type double patenting rejection in the later-filed copending application, per USPTO practice, the examiner will withdraw the rejection.

Response to Arguments

18. Applicant's arguments filed 6/27/2006 have been fully considered but they are not persuasive. Specifically, applicant argues (A) that the open-ended ranges of "at least about 1 wt

%," "at least 3 wt %," "at least about 28 wt %," and "at least 40 wt %" are not new matter; (B) that the teaching by Shoji et al regarding praseodymium oxides is not sufficient to render obvious the presently claimed "praseodymium oxide selected from the group consisting of oxides, mixed oxides, solid solution oxides, hydrated oxides, hydroxides, and combinations thereof"; (C) that there is no motivation to combine the ingredients taught by Shoji et al; and (D) that one of ordinary skill in the art would not be motivated to utilize other unlisted anticorrosive additives.

With respect to argument (A), on page 18 in Table 1A, a range of 0.1-90 % is taught which is a broad range but is clearly not an open-ended range which allows for values greater than 90 %. While this range of 0.1-90 % is preferred, this does not provide support for a broader range. Note that an "implied" range is not the standard for new matter situations. Case law holds that, with respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported by the discussion in the original disclosure, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Examiner agrees that there is support for the endpoints.

With respect to argument (B), first, note that independent claim 35 only recite "one or more rare earth compound" which Shoji et al clearly discloses. Second, while the examiner that a genus does not necessarily render obvious a species, it is noted that applicant claims a number of "oxide" species (including the genus) and therefore cannot argue that Shoji et al only discloses an oxides. Third, the examiner's position remains to be that a praseodymium mixed oxide or an oxide with specific oxidation states is expected to provide for anticorrosive properties given that

Shoji et al teaches praseodymium oxide do so, absent any evidence of criticality for one over the other.

With respect to argument (C), while Shoji et al does not exemplify the presently claimed composition, this does not negate a finding of obviousness under 35 USC 103 since a preferred embodiment such as an example is not controlling. Rather, all disclosures "including unpreferred embodiments" must be considered. *In re Lamberti* 192 USPQ 278, 280 (CCPA 1976) citing *In re Mills* 176 USPQ 196 (CCPA 1972). Therefore, it would have been obvious to one of ordinary skill in the art to utilize a coating composition comprising praseodymium oxide with various extenders given that Shoji et al teaches each one.

With respect to argument (D), Shoji et al clearly teaches that anticorrosive additives can be used and provides a limited list, however, it also recites "etc" (col. 11, line 19) which clearly suggests that other anticorrosive additives not listed would be just as suitable for use in Shoji et al's composition.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/13/2006
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